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## CHAPTER 2

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### **SOUTH CAPITOL STREET TODAY**

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The physical and social characteristics of the study area define both opportunities and limits for improvements. Understanding these characteristics is the basis for effective planning. Information on the existing conditions in the study area was used to help define the options described in later chapters of this report.

The South Capitol Gateway and Corridor Improvement Study and the Anacostia Access Study considered many different characteristics to reach their recommendations and options. Land use characteristics are important because any changes in the study area must enhance its neighborhoods, commercial areas, government buildings, and parks. Transportation characteristics are central to these studies because transportation improvements would be part of the creation of a gateway, and transportation improvements could help shape the adjacent land uses. Social and economic characteristics of the study-area population help describe the people who will be directly affected by any changes. Physical characteristics provide the setting into which improvements must fit.

### **LAND USE AND ZONING**


#### **LAND USE**

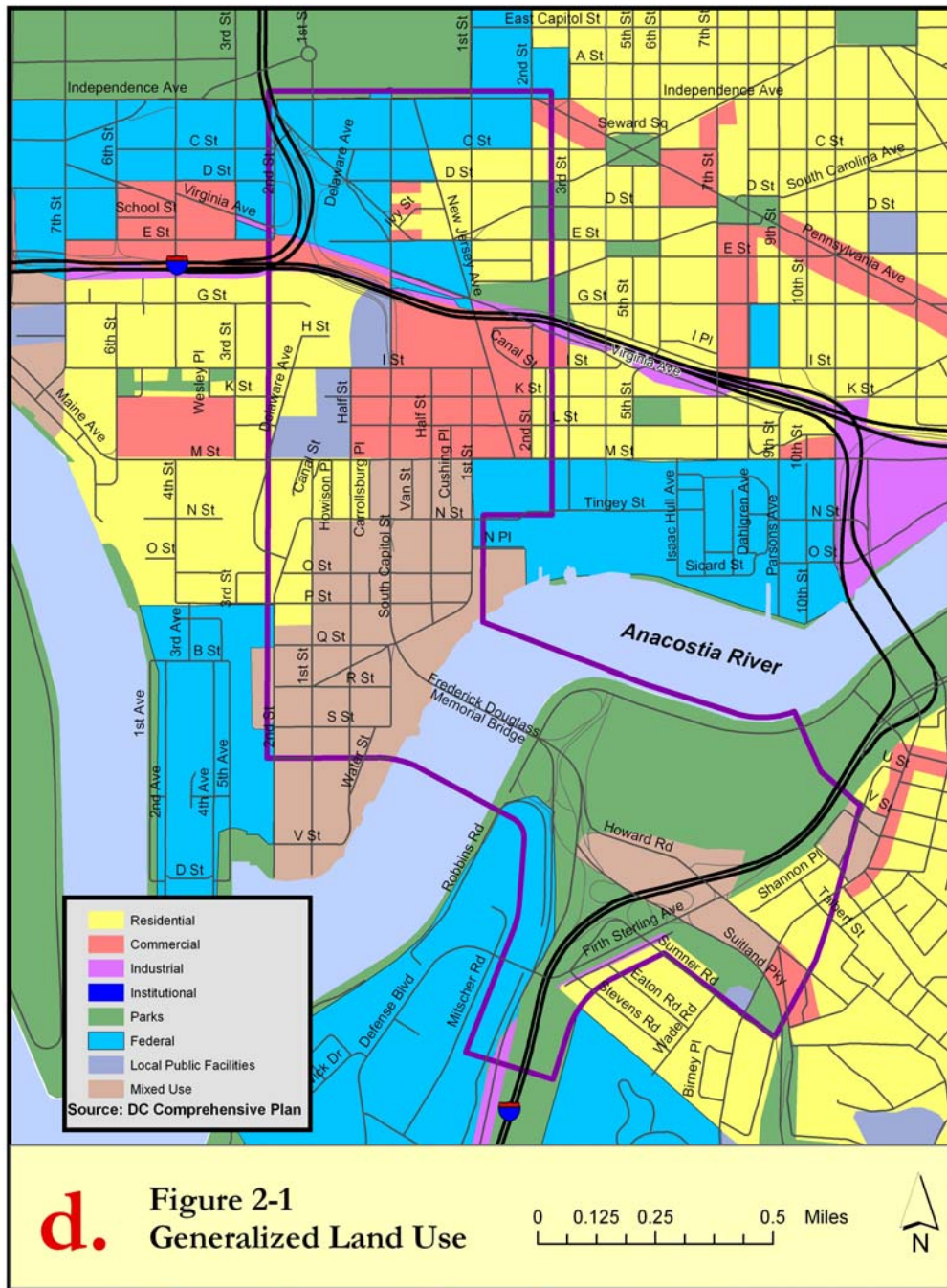
The Comprehensive Plan for the National Capital governs land use in the District of Columbia. The plan identifies goals, objectives and planning policies for the District's growth and development. The plan is divided into two elements: the Federal Elements, which addresses federal lands in the District, and the District Elements, which addresses nonfederal lands. Both elements apply within the study area, and any proposed development within the study area must be consistent with both.

The National Capital Planning Commission prepares the Federal Elements. The current version was adopted in August 2004.

The DC Office of Planning prepares the DC Comprehensive Plan, which also serves as the District Elements of the Comprehensive Plan for the National Capital. The DC Comprehensive Plan includes detailed plans for each ward of the city. The study area includes portions of Wards 2, 6, and 8. The DC Comprehensive Plan was most recently updated in 1998 and 1999. The Office of Planning is now revising the DC Comprehensive Plan.

Current land uses within the study area are shown in Figure 2-1 on the following page.





*Special Land Use Designations within the Study Area*

**District of Columbia Enterprise Zone.** Businesses located within enterprise zones are eligible for unique federal tax credits, deductions, exemptions, and exclusions. Census tracts identified within the District as having a poverty rate of 20 percent or higher are designated as primary enterprise zones. Based on the 2000 Census, 65 of the District's 193 census tracts are considered primary enterprise zones. The District also designates census tracts with a poverty rate between 10 and 20 percent as secondary enterprise zones.

The northern end of the South Capitol Street study area east of Washington Avenue, SW and between Independence Avenue and D Street is part of a primary enterprise zone. Much of the study area south of the Southeast-Southwest Freeway is also part of a primary enterprise zone. The portion of the study area west of South Capitol Street between the freeway and I Street, SW and National Park Service- and Department of Defense-owned lands east of the Anacostia River are excluded from the enterprise zone.

**Priority Development Areas.** District of Columbia law (D.C. CODE 1981 s 1-2295.20) designates certain areas within the District as priority development areas (PDAs). PDAs are locations that are in need of revitalization and where the resources and powers of the National Capital Revitalization Corporation (NCRC) should be given priority. The NCRC is a public-private entity designed to serve as a manager of major development projects in the District of Columbia.

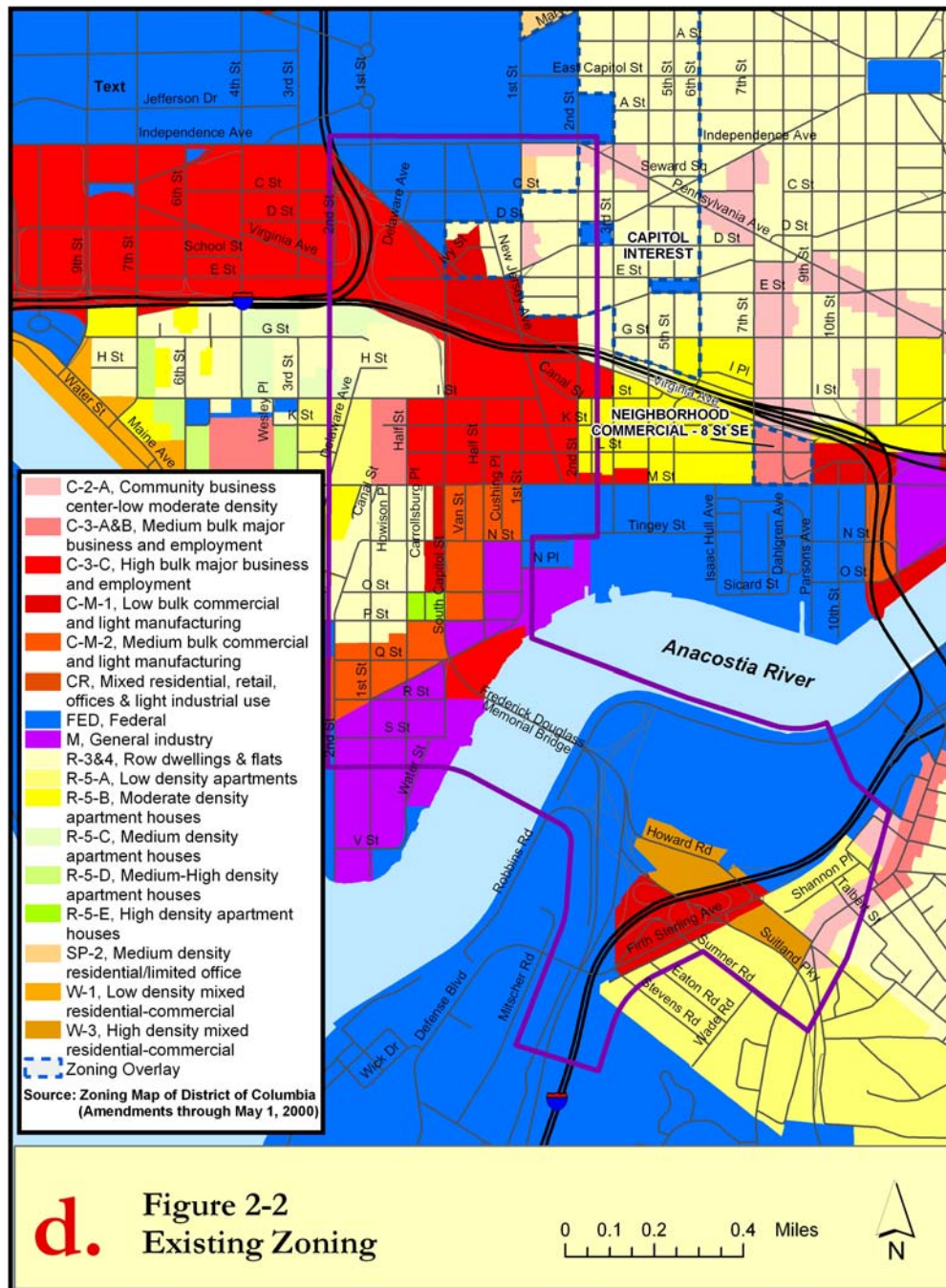
PDAs include geographic areas designated in DC regulations as well as federally approved Enterprise Zones or Communities and housing opportunity areas, development opportunity areas, and new or upgraded commercial centers designated on the DC Generalized Land Use Policies Map included in the DC Comprehensive Plan. The primary enterprise zone at the northern end of the South Capitol Street study area is also designated a PDA. The portion of the study area south of the Southeast-Southwest Freeway, including the area east of the Anacostia River, is also part of a PDA.

**High Technology Development Zones.** The entire South Capitol Street study area is within a High Technology Development Zone. The District has established High Technology Development Zones to promote the growth of the local technology industry. Within these zones, the District provides tax incentives and facility assistance for Qualified High Technology Companies (QHTCs).

**ZONING**

Zoning regulations control the use, density, and configuration of buildings and other structures within the District, as well as the open space surrounding them. Land in the District of Columbia has been divided into zoning districts, which identify the specific uses allowable on a particular property according to the zoning regulations. Zoning districts within the study area are shown in Figure 2-2. Federally owned lands are not subject to District of Columbia zoning regulations.

The Capitol Interest District (CAP) overlay zone affects portions of the residential and community business zoning districts in the northeast corner of the study area. Uses within the overlay zone must be consistent with the United States Capitol Master Plan and are subject to certain lot coverage and height restrictions.





There is a transfer of development rights (TDR) receiving zone located north of M Street just east of South Capitol Street. The TDR compensates for development areas that are limited elsewhere in the city. Current zoning allows for high-density commercial development in this stretch along M Street east of South Capitol Street. Floor-area ratios of up to nine and ten are allowable.

## TRANSPORTATION AND TRAFFIC CONDITIONS

### EXISTING ROADWAY NETWORK

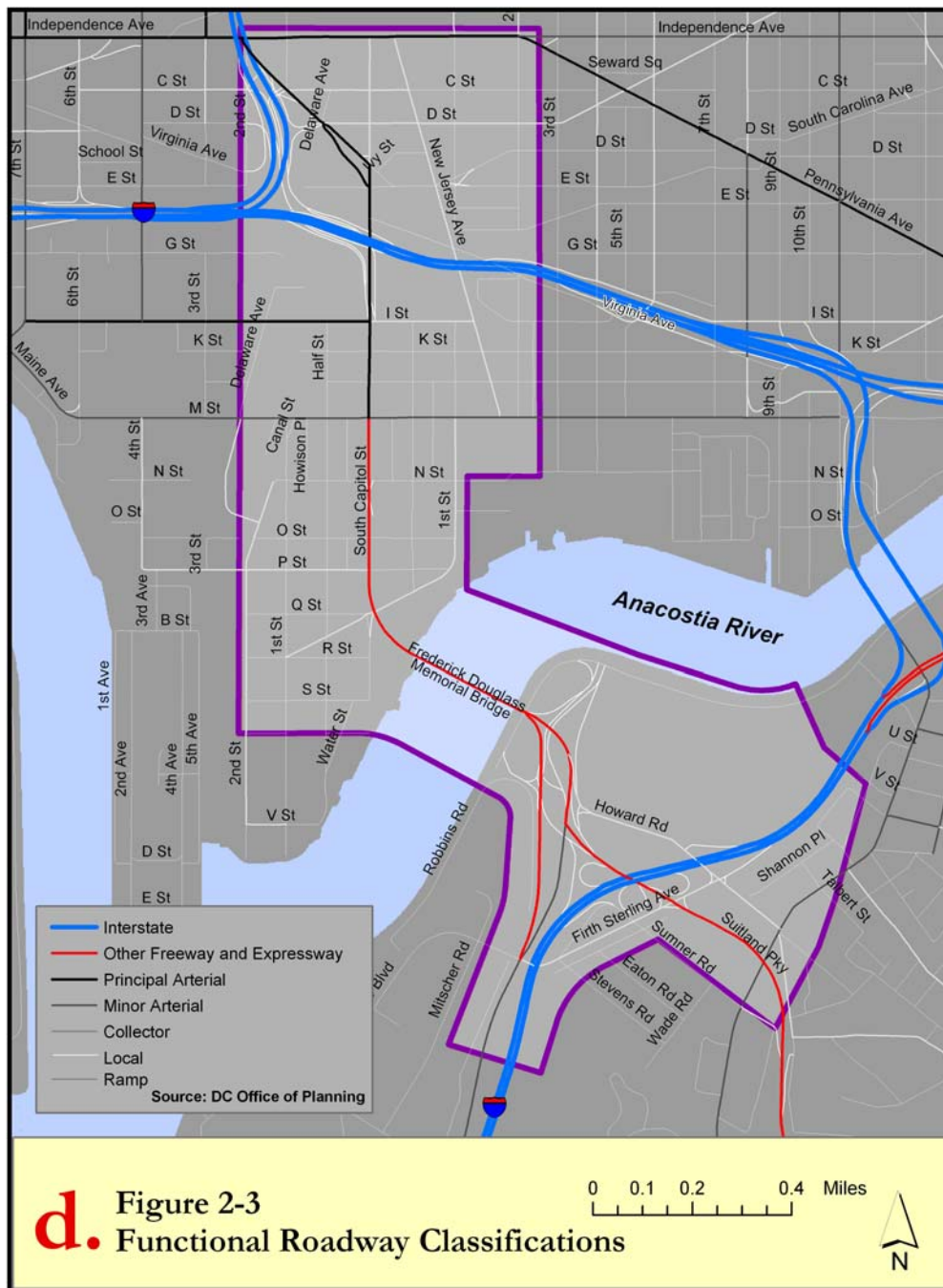
#### *South Capitol Street*

South Capitol Street is classified as a principal arterial north of M Street and as an expressway south of M Street. The Frederick Douglass Memorial Bridge carries South Capitol Street across the Anacostia River, where it intersects with I-295 and Suitland Parkway at multiple highway access ramps and then continues south, parallel to I-295. The classification of the roadway changes from expressway to minor arterial south of the South Capitol Street and Firth Sterling Avenue, SE intersection. The posted speed limit on most of South Capitol Street west of the Anacostia River is 25 mph. East of the river the speed limit is 40 mph. Figure 2-3 shows the street system and functional classifications in the study area.

Throughout most of the study area, mainline South Capitol Street consists primarily of asphalt pavement, but the surface material changes to concrete at the ramp and bridge sections. Curb and gutter exist throughout much of the study area except for the freeway sections, which have either concrete barriers or guardrail. Brick medians and concrete median barriers are located along various segments of South Capitol Street. The street right-of-way (ROW) width and number of travel lanes vary throughout the corridor, as indicated in Table 2-1.

**Table 2-1 South Capitol Street Characteristics by Segments**

Segment		Right-of-Way Width	Total Number of Lanes	On-Street Parking (Yes or No)
<i>From</i>	<i>To</i>			
Independence Avenue	D Street	130 feet	Closed to motor vehicle traffic	N/A
D Street	Washington Avenue	130 feet	2	Yes
Washington Avenue, SW	I Street	240 feet	6	No
I Street	M Street	155 feet	6-8	No
M Street	Frederick Douglass Bridge	130 feet	8	Yes (southern leg of SB South Capitol St. at M St.)
Frederick Douglass Memorial Bridge	Firth Sterling Avenue, SE		5 lane divided roadway (2 lanes SB and 3 lanes NB)	No
Firth Sterling Avenue, SE	End of study area		4	No



Roadway and ramp geometric design varies considerably throughout the study area. The Southeast-Southwest Freeway crosses over South Capitol Street on an elevated structure immediately south of Virginia Avenue. South of the freeway structure, ramps connect South Capitol Street to and from the Southeast-Southwest Freeway and the Third Street Tunnel (I-395). The middle span of the ramp from northbound South Capitol Street to I-295 is suspended from the freeway structure above. The ramps join South Capitol Street immediately north of the signalized intersection with the I Street. South of I Street, the center four lanes of South Capitol Street dip below M Street to create a grade-separated mainline roadway. The outer lanes of South Capitol Street, two in each direction, remain at grade to serve local traffic and act as ramps to form an urban diamond interchange with M Street. South of M Street, the South Capitol Street mainline rises to grade. The road immediately splits again just north of O Street, where southbound through traffic either travels across the Frederick Douglass Bridge or exits onto local South Capitol Street. The local South Capitol Street ends at the intersection with S Street, SW and becomes Water Street, SW, just north of the Anacostia River waterfront.

### *Frederick Douglass Memorial Bridge*

The Frederick Douglass Memorial Bridge (DC Bridge #0053), which carries South Capitol Street over the Anacostia River, is a monument to the nation's foremost 19th-century African American spokesman. Its freeway design, however, provides no special architectural merit to the structure. It has a central swing span—one of the longest in the world—that rotates on a large central pier to allow access for ships to the Washington Navy Yard, located farther east along the Anacostia River. Built in 1949, it was the first bridge to span the Anacostia River at this location.

The eight-span, two-girder bridge is composed of the central swing span connected by additional spans to abutments at each end. The superstructure is steel girders, supported by reinforced concrete piers covered with stone façade. Originally built with two traffic lanes in each direction, the bridge was widened in 1975 to allow for three lanes inbound toward downtown Washington and two lanes outbound. Sidewalks run along each side of the bridge. The extra width for this configuration was gained by lengthening the cantilever support brackets on the outside edges of the bridge and replacing the concrete bridge deck with lightweight concrete. The open-steel-deck portion of the swing span and the supporting stringers were replaced again in 1986. In the late 1990s, the electrical and mechanical systems in the pivot pier were rehabilitated.

A bridge inspection conducted by the D.C. Department of Public Works in 1999 and 2000 found that, in general, the bridge condition ranges from fair to poor. Major structural improvements and repairs are needed for the bridge to continue operating under heavy traffic, including the strengthening and repair of deteriorating steel elements. The bridge is in dire need of painting, which is made difficult by existing layers of lead-based paint. DDOT is planning repairs that will allow the structure to remain in service for approximately 15 years.

In addition to the bridge's poor structural condition, the bridge poses several safety concerns for both pedestrians and vehicles. The concrete barriers between the roadway and sidewalks and the pedestrian rails do not meet AASHTO standards. These features pose risks to pedestrians. The horizontal and vertical alignment at the bridge approaches limits sight distances for motorists.

### *Other Adjoining Facilities*

West of the Anacostia River, the study area largely retains the L'Enfant grid of north-south numbered

streets and east-west alphabetically named streets. Interstate freeways I-295 (also known as the Southeast-Southwest Freeway) and I-395 traverse the northern end of the study area. East of the Anacostia River, the interchange of South Capitol Street, Suitland Parkway and I-295/Anacostia Freeway is a complex arrangement of roadways and ramps that sprawls across Anacostia Park and dominates the area. The interchange is functionally deficient, confusing to use, and unattractive. Roadways that should provide access block it instead. Farther south, Firth Sterling Avenue, SE, intersects with South Capitol Street at the southern end of the study area and links to Howard Road, the Anacostia Metrorail station, and other local streets.

The following is a summary of the major adjoining roadway facilities in the South Capitol Street study area.

**Southeast-Southwest Freeway (I-295).** The Southeast-Southwest Freeway crosses over South Capitol Street on an elevated structure immediately south of Virginia Avenue. The freeway is designated I-295 where it crosses South Capitol Street. Just west of South Capitol Street, the freeway and the Third Street Tunnel are designated I-395. The freeway structure spans approximately 2,800 feet and is supported by numerous piers. The area under the structure on the west side of South Capitol Street is paved and used as a parking lot.

**M Street.** At the grade-separated South Capitol Street interchange, M Street is a six-lane roadway divided by a brick median on the western leg and undivided on the eastern leg. The interchange operates with a single traffic signal. At the interchange, on-street parking is permitted on the southern leg of southbound South Capitol Street.

**New Jersey Avenue.** New Jersey Avenue, SE runs southeast within the study area from Independence Avenue to M Street at the Washington Navy Yard and Southeast Federal Center. This street is a two-lane undivided collector with on-street parking on each side. The speed limit is 25 mph. The street right-of-way through this area is 160 feet wide. The intersections with Independence Avenue, C Street, D Street, E Street, I Street, K Street, and L Street are controlled by stop signs. The intersection with the six-lane M Street, SE, is signalized. New Jersey Avenue passes over Virginia Avenue, SE and the freight railroad structure on a concrete bridge. The Southeast-Southwest Freeway passes over New Jersey Avenue immediately south of Virginia Avenue and the freight railroad underpass. The Navy Yard Metrorail Subway Station is located at the New Jersey Avenue and M Street, SE intersection.

**Suitland Parkway.** Suitland Parkway is a six lane, limited-access highway that generally runs east-west between South Capitol Street and Andrews Air Force Base in Prince Georges County, Maryland. It is classified as an expressway through the study area and carries mostly commuter traffic. The South Capitol Street grade-separated interchange with Suitland Parkway is a partial cloverleaf with loops and ramps in three quadrants.

**Anacostia Freeway (I-295).** The Anacostia Freeway generally runs north-south in the study area east of the river and connects to the Capital Beltway (I-495) at its southern terminus near the Woodrow Wilson Bridge in Prince Georges County, Maryland. There is no access from local streets in this area to southbound I-295.

**Firth Sterling Avenue, SE.** Firth Sterling Avenue is a major route for motorists and pedestrians traveling between the Anacostia Naval Annex, the Anacostia Metrorail station, and Historic Anacostia. The road is classified as a collector road and carries two lanes of traffic in each direction.

**Howard Road.** Howard Road, SE runs from South Capitol Street southeast to Bowen Road, traveling



under I-295. Vehicles are permitted to park along both sides of the two-lane Howard Road. Although there is no direct link between southbound South Capitol Street and Howard Road, this road connects to many others in the vicinity. At the northwestern terminus of this road, westbound vehicles either exit onto Anacostia Drive, SE or northbound South Capitol Street, controlled by a traffic signal. Vehicles can access Howard Road either by the southbound I-295 ramp, the Suitland Parkway via Firth Sterling Avenue, or the northbound Suitland Parkway connection at the northwest end of the road. Traveling westbound on Howard Road is the most direct route from southbound I-295 to northbound South Capitol Street. Vehicles traveling on the southbound I-295 ramp to Howard Road can either turn left or right at the traffic signal at the end of the ramp. The Anacostia Metrorail station can be accessed via Howard Road, immediately north of the I-295 ramp.

## PEDESTRIAN NETWORK

West of the Anacostia River, pedestrian volumes are significant at South Capitol Street and I Street and South Capitol Street and M Street. Pedestrians cannot cross South Capitol Street at most other intersections in the vicinity, due to the median barrier that runs along the center of the roadway and the grade separation of the local and through traffic. Most intersections along either side of South Capitol Street have crosswalks with curb ramps, and signalized intersections have pedestrian push buttons. However, not all of the crossings comply with the requirements of the Americans with Disabilities Act.

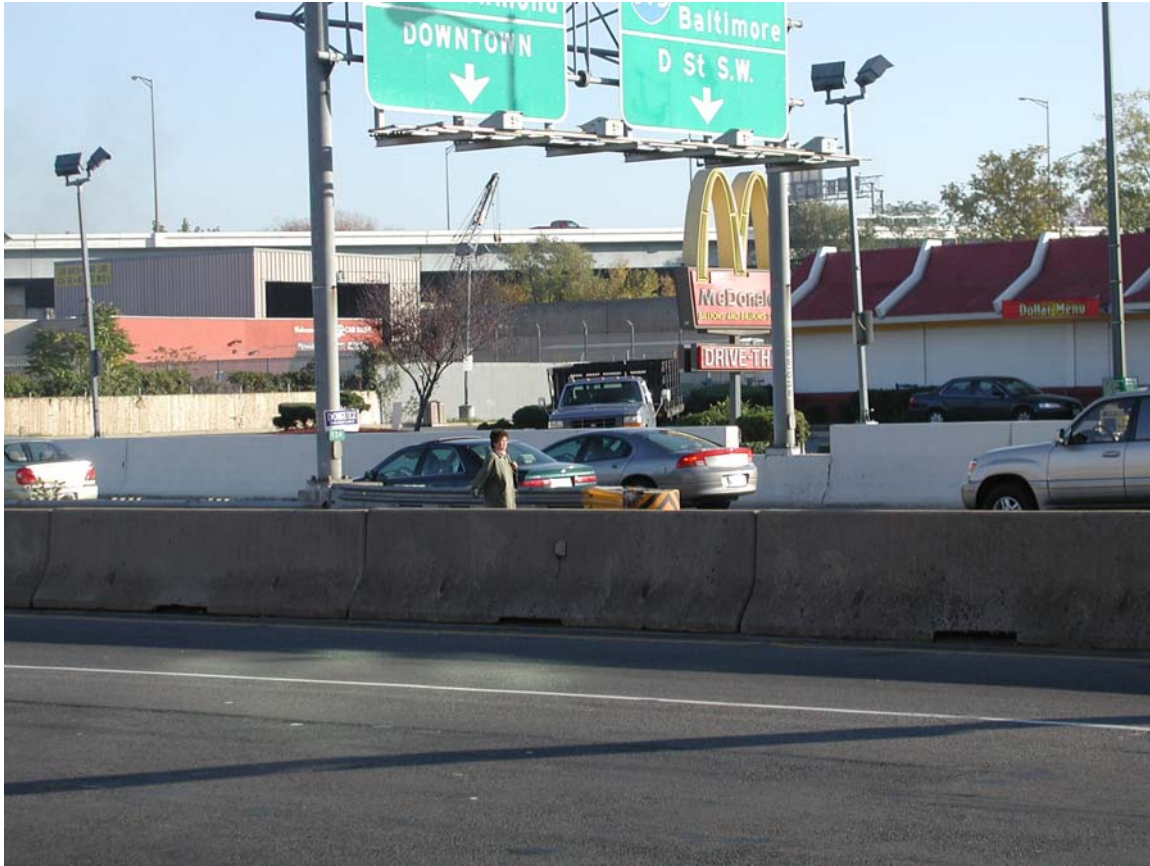
At the intersection of South Capitol Street and I Street, the Best Western Hotel, McDonald's, an Exxon station, and other nearby services attract pedestrians. Present issues at this intersection include a high accident rate, faded crosswalks, the lack of a crosswalk across the northern leg of South Capitol Street (where many pedestrians cross), and the lack of handicapped-accessible ramps in the street median.

The only pedestrian route north from the South Capitol Street and I Street intersection is through a pedestrian tunnel under the I-395 ramp on the west side of South Capitol Street. In addition to being poorly marked, this tunnel is dark and uninviting for pedestrians.

Pedestrians can cross the Anacostia River on 4-foot, 9-inch concrete sidewalks along each side of the Frederick Douglass Memorial Bridge. The sidewalk on the west side of the bridge continues southbound along the ramp for South Capitol Street. The sidewalk on the east side of the bridge does not provide a direct link between the neighborhoods and other destinations east of the river, including Anacostia Park and the Anacostia Metrorail station. Pedestrians traveling between these areas must navigate a winding and potentially hazardous route due to conflicts with vehicular traffic.

East of the river, pedestrians generally travel to and from the Barry Farm housing complex, the Anacostia Metrorail station, Savoy Elementary School, and other services in the area. A heavily used pedestrian route requires crossing Suitland Parkway at the Firth Sterling Avenue intersection, which according to DDOT Traffic Services Administration is one of the most dangerous in the District. A crosswalk is present at this location, but it is long and not adequately marked.

Another heavily used pedestrian crossing is across Howard Road in front of the Anacostia Metrorail station. Pedestrians cross midblock to reach the sidewalk on the north side of the road and Shannon Place. Faded crosswalks are present at the intersection of Howard Road and the Metrobus entrance, which is approximately 140 feet from the present crossing path of pedestrians. A pedestrian countdown timer has recently been installed at this intersection, but the crosswalks have not yet been upgraded. An additional missing link is between the Anacostia Naval Annex and the Anacostia Metrorail Station, where there is no continuous pedestrian route.



*Pedestrian in median of South Capitol Street at I Street*

### **BICYCLE NETWORK**

According to the Washington DC Regional Bike Map, both officially designated and unofficial bike routes currently run throughout the study area. An officially designated route runs east along M Street, SW until it reaches 1<sup>st</sup> Street, SW, where the route heads south, turning east on O Street, SW, and eventually carrying cyclists across the Frederick Douglass Memorial Bridge.

Once across the bridge, the route splits. Cyclists can either continue south along South Capitol Street or turn a sharp 180 degrees to head north to Poplar Point and points east. These routes are indirect, poorly marked, and poorly maintained, although DDOT improved some segments while these studies were underway. In addition, one path crosses several ramps between Anacostia Drive, Howard Road, and South Capitol Street without adequate warning.



*Cyclist crossing traffic entering freeway ramp at South Capitol Street*

## TRAFFIC OPERATIONS

### *Intersection Level of Service (LOS) Analysis*

The South Capitol Gateway and Corridor Improvement Study included the collection of both average daily traffic (ADT) and intersection turning-movement count data at several locations in the study area in September 2002. Additional ADT and turning-movement counts were collected in the Anacostia Access Study in June 2003.

The majority of traffic on South Capitol Street is commuter traffic between the Southeast-Southwest Freeway/I-395 and the Frederick Douglass Memorial Bridge. In the a.m. peak hour, approximately 71 percent of the northbound traffic crossing the Frederick Douglass Bridge is destined for either the Southeast-Southwest Freeway (39 percent) or the I-395 expressway (32 percent). In the p.m. peak hour, approximately 70 percent of the total southbound traffic north of I Street is destined for I-295 (11 percent), Suitland Parkway (32 percent) or South Capitol Street south of the Anacostia River (27 percent).

One measure of traffic operations is level of service (LOS). LOS is a measure of the traffic conditions through a given roadway segment or intersection. Different levels of service are based on the delay experienced by vehicles traveling through a roadway segment during the peak, or rush, hour. LOS is measured on a scale of A through F, with LOS A representing the best operating conditions with little or no delay and LOS F representing the worst with unacceptable delay or gridlock.

## SOUTH CAPITOL STREET TODAY

Existing traffic operations were determined using the traffic volumes and traffic signal timings obtained from DDOT Traffic Services Administration. Details of this analysis can be found in Appendix A-1. Table 2-2 summarizes the existing operations of the study area intersections during the a.m. and p.m. peak hours.

West of the Anacostia River, intersections with failing traffic operations, where drivers experience delays greater than 80 seconds per vehicle, include South Capitol Street and I Street and South Capitol Street and M Street. Delays at these locations cause queue lengths to extend back onto northbound South Capitol Street and westbound M Street in the a.m. peak hour, and onto southbound I-295 in the p.m. peak hour. Queue lengths greater than 300 feet occur on eastbound I Street during both the a.m. and p.m. peak hours.

East of the Anacostia River, the intersections of Firth Sterling Avenue and Suitland Parkway, Howard Road and Martin Luther King, Jr. Avenue, and Howard Road and the Metrorail station entrance have delays greater than 60 seconds per vehicle. Some of this peak-hour traffic is destined for major routes such as I-295 or I-395, but because of the lack of roadway connections vehicles must use the local roads as effective ramps and cut-through routes. Some of the queuing on Firth Sterling Avenue and Howard Road is due to the lack of merge area at the Firth Sterling ramp onto northbound I-295.

The intersection of Suitland Parkway and Stanton Road, outside the study area, is the cause of long queue lengths in the southbound direction in the p.m. peak period. Field observation noted traffic backups to just south of the Suitland Parkway and Firth Sterling Avenue intersection.

**Table 2-2. Existing Levels of Service at Study-Area Intersections**

Intersection	AM			PM		
	Cycle Length (secs)	LOS	Delay (secs)	Cycle Length (secs)	LOS	Delay (secs)
Firth Sterling & Suitland Parkway	120	E	57.6	120	F	105.7
MLK Jr. Avenue & Howard Road	120	F	95.5	90	F	100.8
Metro Entrance & Howard Road	60	F	178.2	90	F	384.5
Firth Sterling & Howard Road	60	C	25.2	90	B	17.5
I-295 Off-ramp & Howard Road	90	C	24.3	90	C	21.3
Firth Sterling & Sumner Road	Unsig.	A	5.5	Unsig.	A	7.0
Firth Sterling & S. Capitol Street	120	C	30.5	90	D	40.6
Suitland Pkwy & S. Capitol Street	80	E	77.3	80	B	15.7
M Street Ramp & S. Capitol Street	Unsig.	C	20.8	Unsig.	F	**
S. Capitol Street & M Street West	73	F	266.8	100	E	72.2
S. Capitol Street & M Street East	100	F	375.3	100	C	26.3
S. Capitol Street & I Street	130	D	51.9	120	E	61.9
S. Capitol Street & I-395 Off-ramp	130	D	41.4	120	F	109.4

Source: Parsons Brinckerhoff, 2004

## ACCIDENT INFORMATION

DDOT maintains accident records for most intersections throughout the city, along with rankings of the most frequent accident and fatality sites. Based on the rankings for 2001, DDOT considers some of the intersections in the study area to be the most dangerous in the city. In the total number of accidents in 2001, the intersection of Suitland Parkway and Firth Sterling Avenue was the eighth highest in the District, the intersection of South Capitol Street and I Street was ninth, and the intersection of South



Capitol Street and M Street was eighteenth. Table 2-3 is a summary of the accident data reports from DDOT.

**Table 2-3. Accident Data from January 1999 through December 2002**

Intersection	Total Number of Accidents	Number of Injuries	Number of Fatalities
South Capitol Street & I Street	161	120	1 <sup>1</sup>
South Capitol Street & M Street	96	64	0
Suitland Parkway & Firth Sterling Avenue	136	119	4
Howard Road & Firth Sterling Avenue	21	15	1
South Capitol Street & Suitland Parkway	17	5	0
Howard Road & Martin Luther King, Jr. Avenue <sup>2</sup>	17	12	0

*Source: DDOT Traffic Services Administration*

<sup>1</sup>One pedestrian fatality occurred at this intersection in July 2003.

<sup>2</sup>The accident data for this intersection is from January 2002 through December 2002 ONLY.

The varying roadway and ramp geometric design in the northern portion of the South Capitol Street corridor also contributes to operational problems and creates hazardous driving conditions. Multiple entrance and exit ramps to intersecting roadways serving both local and through traffic are located along South Capitol Street. In addition, driveways serving businesses fronting South Capitol Street create multiple access points to the roadway. These conditions create dangerous weaving movements and interruptions to vehicular and pedestrian traffic flow along the length of the corridor.

#### *South Capitol Street and I Street*

Between 1992 and 2003, there were three fatalities at this location, two of which were pedestrians. Between 1999 and 2002, there were 120 injuries resulting from 161 reported accidents at this intersection. The most common accident types were right angle and rear-end.

Location-specific safety problems at this intersection include the lack of adequate merge length for the I-295/I-395 ramp to southbound South Capitol Street. Vehicles traveling from this ramp immediately encounter a signalized intersection including a right-turn-only lane onto I Street. Weaving problems can occur when the northbound South Capitol Street traffic travels through the intersection, since drivers have a short distance to choose between continuing on South Capitol Street, turning right onto I Street, or taking the northbound I-395 ramp. The lack of advanced signs at these merges and narrow lanes are other possible contributors to accident frequency.

#### *South Capitol Street and M Street*

This location was the scene of 96 accidents between 1999 and 2002. There have been no fatalities at this intersection in the past decade. The most common types of accidents reported were sideswiping and rear-ending, accounting for approximately 40 percent and 29 percent of the total number of accidents, respectively. Left-turn accidents accounted for approximately 13 percent of the total, while right angle, right turn, head on, fixed object, pedestrian, and noncollision types were also reported. The majority of accidents occurred on weekdays between 7:30 a.m. and 6:30 p.m. The intersection, which operates as an urban diamond interchange controlled by one signal, has narrow lanes with poor pavement conditions.

The width creates short sight distances, a probable cause of many accidents.

*Martin Luther King, Jr. Avenue and Howard Road*

This intersection was the site of 17 accidents in 2002. The most common types of accidents were rear-end and side swipe, accounting for approximately 24 and 18 percent of the total number of accidents, respectively. The majority of accidents occurred between 6:30 p.m. and 7:30 a.m. on weekdays. This intersection is a location of significant traffic backups and operational failures, which could be a cause of the rear-end accidents.

*Suitland Parkway and Firth Sterling Avenue*

Between 1993 and 2003 there were nine fatalities at this intersection, three of which were bicyclists or motorcycles and two of which were pedestrians. From 1999 until 2002, this location was the scene of 136 accidents and 119 injuries. The most common types of accidents were rear-end and left turn collisions.

One of the likely causes of accidents at this intersection is the limited sight distance and abrupt change in speed from both the northbound and southbound Suitland Parkway approaches. From the north, this signalized intersection is the first one that vehicles reach when they travel southbound on South Capitol Street across the Frederick Douglass Memorial Bridge. From the south, Suitland Parkway curves under Martin Luther King, Jr. Avenue before approaching a signalized intersection with a heavily used crosswalk. The lack of advanced warning of this intersection creates an unsafe condition.

DDOT Traffic Services Administration performed a safety study on this intersection in 2003. A summary of the study findings and recommendations is in Table 2-4. None of the listed mitigation measures are known to have been implemented.

**Table 2-4**  
**Conclusions from the Firth Sterling Avenue and Suitland**  
**Parkway Intersection Traffic Safety Evaluation**

Existing Issue	Proposed Mitigation
The eastbound Firth Sterling Avenue lanes back up prior to the intersection with Suitland Parkway, particularly affecting the right turn lane	A longer merge and taper area for eastbound Firth Sterling Avenue to southbound Suitland Parkway traffic
Vehicles frequently drive over the striped islands to advance through the intersection	The installation of several concrete medians to replace the existing hatched striping
Pedestrians cross Suitland Parkway approximately 50 feet east of the existing crosswalk	Relocation of the existing crosswalk across Suitland Parkway further east
The majority of the left turn collisions involved vehicles turning left from Suitland Parkway, possible due to limited sight distance	Possibly making the left turn phasing for Suitland Parkway exclusive only; Providing turn path guidelines for the opposing left turns on Suitland Parkway
Motorists are pulling too far forward to turn right on red from southbound Firth Sterling Avenue	Relocate the stop bar and add a "No Right Turn On Red" sign

## TRANSIT FACILITIES AND SERVICES

The Washington Metropolitan Area Transit Authority (WMATA) provides transit service in the study area. Figure 2-4 shows the locations of transit facilities and services. Three Metrorail stations are in the study area. The Capitol South station entrance is at First and D Streets, SE. The station is on the Orange and Blue Lines, which run east-west in a tunnel beneath D Street. The Navy Yard station has two entrances on M Street, SE, one at New Jersey Avenue and another at Half Street, SE. It is on the Green Line, which runs east-west in a tunnel beneath M Street. On the east side of the Anacostia River, the Anacostia station on the Green Line is beneath the Anacostia Freeway. It has two entrances, one at a parking garage on the north side of the freeway and one at a bus drop-off area on the south side.

Metrobus service operates both through and across the study area. Four bus routes operate along South Capitol Street in the study area, but only during peak periods on weekdays. Service is limited to only inbound buses in the morning and outbound buses in the evening. Route A9 runs from the Livingston Loop at the District line to L'Enfant Plaza. Routes P17 and P19 run from Tantallon in Maryland and route W13 runs from Friendly; all terminate at Farragut Square. Buses serve Buzzard Point from the north throughout the day on route 70, which runs through the District from Silver Spring; route 71 augments it during peak periods.

Some routes run into the study area to connect to the Metrorail stations. Many routes run into the Anacostia Metrorail station from the south, including routes P18, W9 and W14. Route N22 runs on M Street, SE to the Navy Yard Metrorail station.

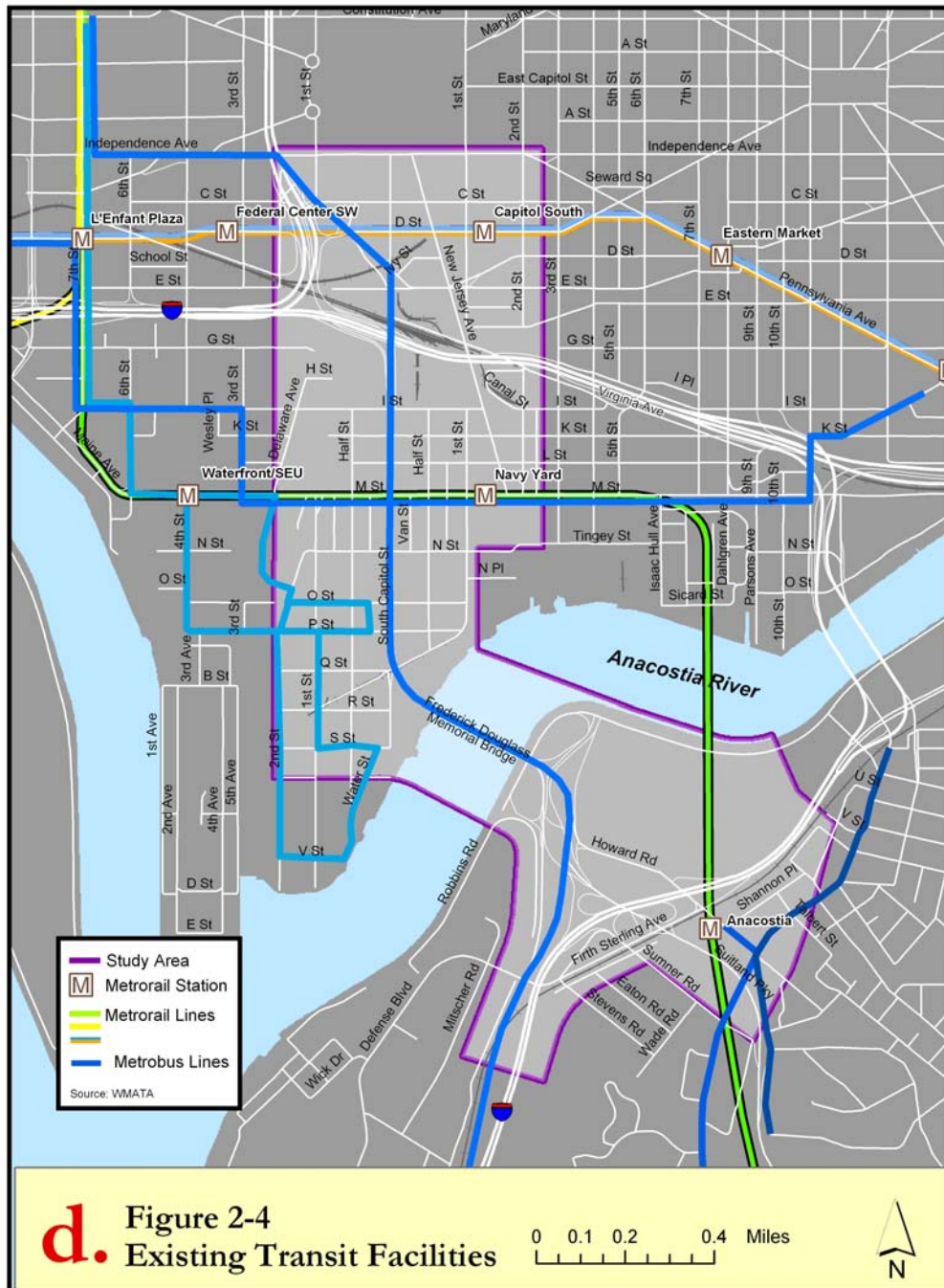
Other bus routes cross the corridor. Routes 30, 32, 34, 35, and 36 run on Independence Avenue. Routes P1, P2, V7, V8, and V9 cross the study area on M Street, and routes A42, A46, and A48 run there during hours when the Metrorail system is closed. Route P6 runs on E Street, SE and Washington Avenue. Routes V5 and D51 pass through the study area on the Southeast-Southwest Freeway. Routes A2, A4, A5, A6, A7, A8, A42, A46, A48, W2, W3, and W9 run on Martin Luther King, Jr. Avenue. Routes W9, P18, and W14 run on Firth Sterling Avenue and its service road.

A light rail demonstration line will be constructed east of the river and is anticipated to be in operation in 2006. DDOT and WMATA are developing the 2.7 mile Anacostia light rail line between Pennsylvania Avenue, SE and the Anacostia Naval Station/Bolling Air Force Base complex to the south. The transit line will follow an existing, unused freight rail right-of-way and is the initial segment in a of a larger 33-mile light-rail network that District officials hope to extend across the river to the Southwest Waterfront, Georgetown, and points beyond.

## FREIGHT RAIL

Two railroad bridges cross over South Capitol Street in this area. One, a double-track bridge that crosses South Capitol Street at its intersection with Washington Avenue, leads into the First Street Tunnel to Union Station and carries Amtrak intercity passenger trains and VRE commuter trains. The other bridge, crossing South Capitol Street just south of Virginia Avenue, SE, carries freight trains. Because these bridges are grade-separated from South Capitol Street, there is no disruption to traffic operations.

Although there have been proposals to remove these railroad lines, no plans have been formally adopted to do so. One recent study, the Mid-Atlantic Rail Operations Study, assumes their continued use. The study, which was sponsored by a coalition of five states and three railroads, including both Amtrak and





CSX, recommended a public-private program that would, among other improvements, expand and upgrade the CSX line that crosses the study area. The proposed improvements include reconstructing the Virginia Avenue tunnel east of the study area and adding railroad capacity by building additional tracks on this line.

An unused rail line is located east of the Anacostia River and parallel to Firth Sterling Avenue, SE, in the study area. It is along this right-of-way that DDOT and WMATA are developing the Anacostia Light Rail line.

## NAVIGATION

The Anacostia River is a navigable waterway traveled primarily by recreational boats. The river channel is maintained by the U.S. Army Corps of Engineers. Several marinas are located along the river and provide docking and launching facilities. The James Creek and Buzzard Point Marinas are located just south of the study area. The Anacostia Boat House is located just north of the study area. Some boat traffic is generated by the Washington Navy Yard, located just northeast of the study area. Present boat traffic rarely necessitates opening the Frederick Douglass Memorial Bridge, which is an operable swing bridge.

## HELICOPTER SERVICE

The South Capitol Street Heliport is located on the Anacostia waterfront at 1724 South Capitol Street, SE. The heliport is the only facility of its type licensed in the District. The heliport has been developed and improved over the last few years through the construction of a new hangar and environmental remediation. It previously served a variety of private and public helicopter users, and there were plans for further expansion, but aviation security measures have now reduced the facility's use. The Metropolitan Police Department is the only authorized user at the current time and operates its helicopter from the heliport. Other helicopters that receive waivers from security requirements use the facility on a case-by-case basis.

## UTILITIES

The summary of the utility infrastructure in this report is based on maps and other utility information provided by the District Government, local utility companies, and the Architect of the Capitol. The Anacostia Access Study did not include detailed field inspections or surveys of utilities.

### UTILITY FACILITIES WITHIN THE STUDY AREA

#### *Capitol Power Plant*

The Capitol Power Plant is located on the east side of South Capitol Street between E Street and Virginia Avenue. It is a coal-powered plant that produces steam heat and cooling for the Capitol and other federal buildings in the area.

The plant is currently undergoing major renovations to increase its heating and chilling capacity, improve security, and enhance the landscaping around the plant. The renovations also include improving the coal-storage and -handling facilities. The storage facility is located south of the power plant, extending under the Southeast Freeway to I Street. A new rail spur has recently been constructed under the freeway and a

## SOUTH CAPITOL STREET TODAY

new tunnel and conveyor system under both Virginia Avenue and the freeway are under construction. These improvements are to facilitate the coal-handling operation.



*Capitol Power Plant*

### *PEPCO Power Plant*

An electric generating plant on Buzzard Point occupies the block bounded by T, U, First, and Half Streets, SW. The plant operates during peak periods of demand for electricity. The plant uses fuel oil, which is brought in by truck and stored on site. A subsidiary of Potomac Electric Power Company (PEPCO), PEPCO Energy Services, owns the plant. Mirant Corporation operates and maintains it. PEPCO owns the underground power transmission lines in the area.

### *Main Pumping Station*

The District of Columbia Water and Sewer Authority (WASA) Main pumping station, located near the intersection of O Street and 2<sup>nd</sup> Street SE, is split into a sanitary side and a storm side. The sanitary side primarily handles dry weather sanitary flows, designed to have a firm capacity of 240 million gallons per day (mgd). It handles incoming wastewater from the Tiber Creek and B Street/New Jersey Avenue drainage areas that include the South Capitol Street study area, as well as flows from the Potomac/Rock Creek system that enter the B Street/New Jersey Avenue Trunk Sewer. Wastewater is then pumped under the Anacostia River via siphons to the Blue Plains Wastewater Treatment Plan. The storm side is used during wet weather events, with a firm capacity of 400 mgd, to lift storm overflows into the

Anacostia River and prevent flooding of basements and streets in the surrounding low-lying drainage areas.

#### *O Street Pumping Station*

Like the Main Pumping Station, this station is split into sanitary and storm sides and is designed to have firm capacities of 45 and 500 mgd, respectively. The sanitary side pumps wastewater from the Southwest Interceptor to one of the siphons that run under the Anacostia to the Blue Plains Wastewater Treatment Plant. The storm side pumps combined sewage from the B Street/New Jersey Avenue Relief Sewer, which serves a low-lying area of the B Street/New Jersey Avenue drainage area, to the Anacostia River.

#### *Poplar Point Sewerage Pumping Station*

The Poplar Point pumping station is located adjacent to the South Capitol Street-Suitland Parkway-I-295 interchange. This station was designed to have a firm capacity of 45 million gallons per day and pumps combined wastewater from the Anacostia Main Interceptor to the outfall sewers that lead to the Blue Plains Wastewater Treatment Plant.

### **UTILITIES UNDER SOUTH CAPITOL STREET AND OTHER STREETS IN THE STUDY AREA**

Several major utility lines—sanitary, storm, and combined sewer; water; electrical transmission; and natural gas—lie under South Capitol Street. In addition, 2-foot, 7-inch by 5-foot steam tunnels connecting to the Capitol Power Plant are located below South Capitol Street at the extreme northern end of the study area, between Independence Avenue and C Street, to serve the U.S. Capitol and other federal buildings in the vicinity. Major utilities also lie under other streets in the study area.

Each main utility distribution system, along with its limits, is identified in Table 2-5. The sizes listed are approximate. Other minor utilities may also exist within the identified limits.

**Table 2-5**  
**Major Utilities under South Capitol Street and Other**  
**Streets in the Study Area**

Utility System	Street	From	To	Diameter
<b>Sewer</b>				
Combined	South Capitol Street	D Street	E Street	4'
Combined	South Capitol Street <sup>1</sup>	Anacostia Drive	Anacostia Naval Annex/Bolling Air Force Base complex	8'4" x 9'4" & 8'4" x 9'8" pair
Combined	Washington Street, SW/Canal Street, SE	D Street	E Street	14'x14'3"
Combined	New Jersey Avenue	I Street	O Street pumping station	15'
Combined	2 <sup>nd</sup> Street, SE	Virginia Avenue	O Street pumping station	14'x14'3"
Combined	D Street	2 <sup>nd</sup> Street, SW	1 <sup>st</sup> Street, SW	2-108"
Combined	D Street	South Capitol Street	3 <sup>rd</sup> Street, SE	5'
Combined	Howard Road	South Capitol Street	Sumner Road, SE	4'6"x5'
Sanitary sewer	Half Street, SW	I Street	M Street	66"
Sanitary sewer	Half Street, SE	I Street	O Street	11'6"
Sanitary sewer	1 <sup>st</sup> Street, SE	M Street	Anacostia River	Varies 60" to 48"
Sanitary sewer	I Street	3 <sup>rd</sup> Street, SW	Half Street, SW	5'3"
Sanitary sewer	I Street	South Capitol Street	Half Street, SE	108"
Stormwater	South Capitol Street	E Street	I Street	
Stormwater	Washington Street, SW/Canal Street, SE	1 <sup>st</sup> Street, SW	2 <sup>nd</sup> Street, SE	3'6"
Stormwater	2 <sup>nd</sup> Street, SE	Virginia Avenue	O Street pumping station	3'6"
<b>Water</b>				
	South Capitol Street	M Street	R Street	16"
	South Capitol Street	Firth Sterling Avenue, SE	Anacostia Naval Annex/Bolling Air Force Base complex	30" & 36"
	1 <sup>st</sup> Street, SE	I Street	Anacostia waterfront	2-36"
	2 <sup>nd</sup> Street, SE	E Street	K Street	36"
	E Street	4 <sup>th</sup> Street, SW	2 <sup>nd</sup> Street, SE	30"

<sup>1</sup> Three 60-inch combined sewer siphons run southeast across the Anacostia River from the pumping station at 2<sup>nd</sup> and O Streets. These pipes transition to an 8-foot, 4-inch by 9-foot, 4-inch and an 8-foot, 4-inch by 9-foot, 8-inch pair around Anacostia Drive and run adjacent to South Capitol Street. A 108-inch separate sewer runs from the intersection of the South Capitol Street ramps northeast along the Anacostia waterfront. PEPCO owns the underground power transmission lines in the study area.



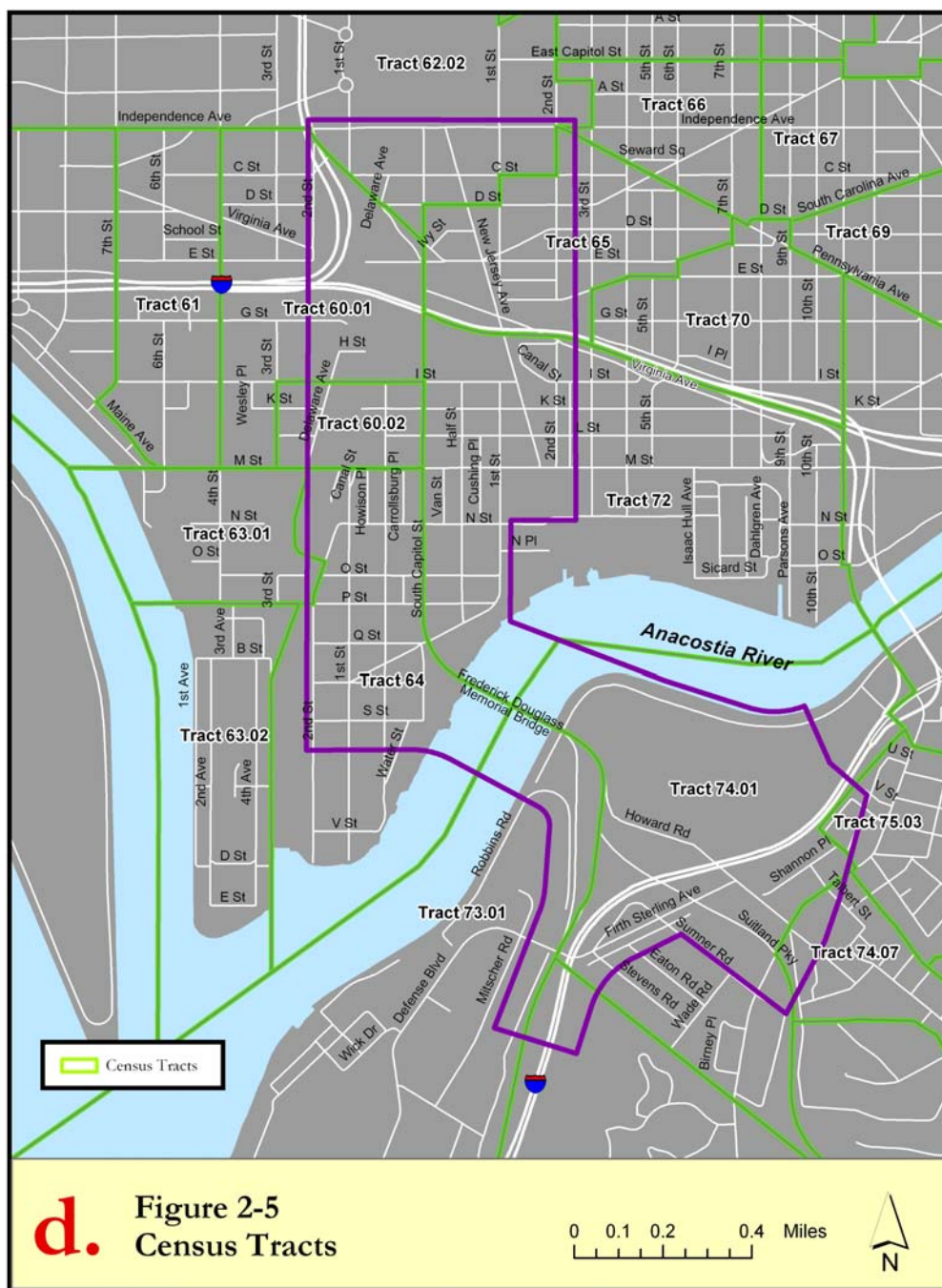
Utility System	Street	From	To	Diameter
<b>Underground Electric Power</b>				
	South Capitol Street	E Street	R Street	
	South Capitol Street	Anacostia River	Anacostia Naval Annex/Bolling Air Force Base complex	
	Washington Street, SW/Canal Street, SE	C Street	E Street	
	1 <sup>st</sup> Street, SE	Maryland Avenue	C Street	
	1 <sup>st</sup> Street, SE	M Street	Anacostia waterfront	
<b>Natural Gas</b>				
	South Capitol Street	C Street	Q Street	
	South Capitol Street	S Street	Anacostia River	
	South Capitol Street	Firth Sterling Avenue, SE	Anacostia Naval Annex/Bolling Air Force Base complex	

*Source: District of Columbia Government, Sewerage System, 1985 and Water Distribution System, 1986; District of Columbia, Water and Sewer Authority Counter Maps; Potomac Electric Power Company (PEPCO), Facility Plats; and Washington Gas Light Company, Facility Maps, 1984. No major gas or other miscellaneous utilities have been identified under other streets in the study area.*

## SOCIAL AND ECONOMIC CHARACTERISTICS

### POPULATION CHARACTERISTICS

There are 572,059 persons living within the District of Columbia, according to the 2000 U. S. Census. The study area includes a population of approximately 12,800 persons residing in the census tracts that encompass the study area. Figure 2-5 shows the census tract boundaries. The population is primarily Black/African American (71 percent). The majority of the 12,800 persons living within the study area are in the age groups 5 to 17 and 25 to 34. A concentration (17 percent) of persons in the age group 65 and older is found in the census tract area west of South Capitol Street, between M Street and the Anacostia River.



## ECONOMIC CHARACTERISTICS

The census information on income and poverty in the study area indicates that median household income for the District of Columbia was \$40,127 in 2000. The median household income in the study area census tracts is below the District's median household income, except for census tract 65, which includes the more affluent Capitol Hill neighborhood. Incomes in most of the census tracts were also below the District's per capita income, again except for the Capitol Hill census tract and the tract west of South Capitol Street and north of I Street to Washington Avenue, SW.

The U.S. Census Bureau determines poverty status for all people except institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old. These groups are excluded from the calculations when determining poverty rates and are considered neither "poor" nor "non-poor." Families and persons are classified as below poverty level if their total family income or unrelated individual income was less than the poverty threshold specified for the applicable family size, age of householder, and number of related children under 18 present.

Of the 541,657 persons for whom poverty is measured in the District of Columbia, 20 percent have been identified as living below the poverty level. A majority of the census tracts within the study area exceed the District's percentage of persons below poverty level. All are located south of the Southeast-Southwest Freeway, including the residential neighborhoods east of the Anacostia River.

## NEIGHBORHOOD AND HOUSING CHARACTERISTICS

The South Capitol Street study area encompasses all or part of seven neighborhoods: Southwest Employment Area, Southwest/Waterfront, Buzzard Point, Capitol Hill, Near Southeast, Navy Yard, Barry Farm, and Sheridan. Two other neighborhoods, Fort McNair and Historic Anacostia, are immediately adjacent to the study area.

Housing in the study area is a mixture of single-family and multifamily housing. The single-family housing includes older dwellings, some of which are homes dating to the late 1700s in the Capitol Hill neighborhood. Other housing, such as the single- and multifamily housing units in the Southwest/Waterfront neighborhood, dates to the late 1950s and early 1960s, when much of the neighborhood's older housing stock was replaced as part of urban renewal efforts.



*Housing on Carrollsbury Place just west of South Capitol Street*

## SOUTH CAPITOL STREET TODAY

Housing is a mixture of owner-occupied, rental, and approximately 1,300 dwelling units of public housing managed by the District of Columbia Housing Authority (DCHA). Residential neighborhoods are concentrated in the Capitol Hill neighborhood, in the northeastern corner of the study area, and west of South Capitol Street between the Southeast-Southwest Freeway and the Anacostia River.

Of note is the Arthur Capper-Carrollsborg public housing units located just east of the study area between I Street and M Street. The Capper-Carrollsborg complex is being redeveloped under a Hope VI grant from the U.S. Department of Housing and Urban Development (HUD) that will replace 780 existing public housing units with 707 new public housing units, 525 affordable rental units, 330 market-rate homes, 600,000 square feet of office space and 20,000 to 40,000 square feet of retail space.

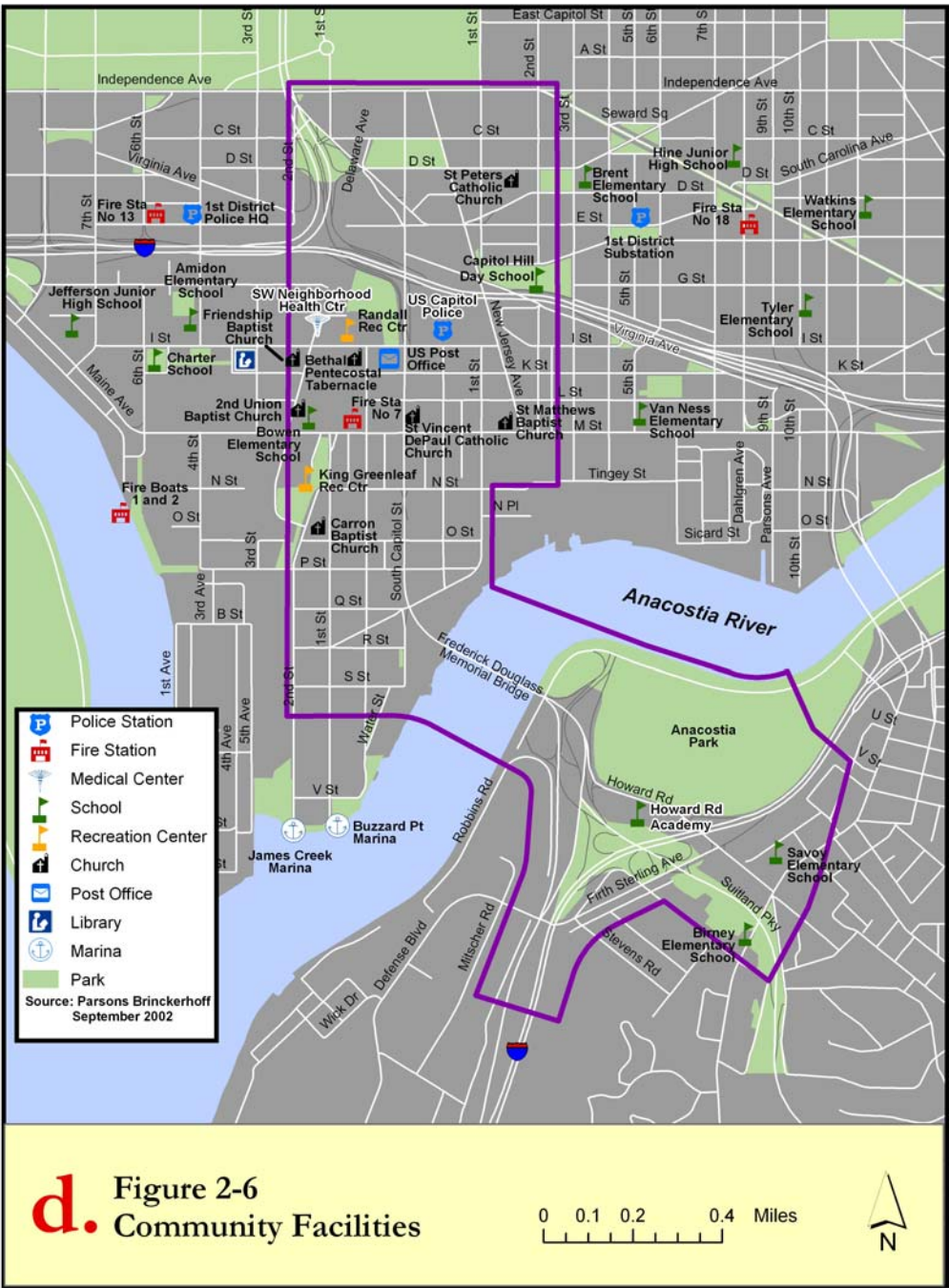
### COMMUNITY AND PUBLIC FACILITIES

Located in a highly urbanized environment, the South Capitol Street corridor bisects the southern quadrants of the District and passes through numerous neighborhoods. Community and public facilities—public and private schools, places of worship, parks and recreation facilities, police stations, and fire stations—that support the neighborhoods are located throughout the study area, as shown in Figure 2-6.



*Randall Recreation Center*





## PHYSICAL CHARACTERISTICS

### TERRAIN

According to the United States Geological Survey, the study area is within the Coastal Plain Physiographic Province of the District of Columbia. Topography in the study area is relatively flat and much of the natural topography has been altered by cut-and-fill activities and grading. East and west of the Anacostia River, elevation ranges between 6 and 30 feet above mean sea level.

### SOILS

A review of the U.S. Department of Agriculture, Soil Conservation Services Soils Survey of the District of Columbia indicated that soils within the study area are generally classified as Urban Land and Udorthents. These soils are characteristic of areas that are mostly covered with impervious surfaces and areas that have been altered due to cut-and-fill activities, grading, development, and infrastructure.

### WATER RESOURCES

#### *Surface Water*

The Anacostia River is the only surface water feature located within the study area according to U.S. Geological Survey 7.5 minute quadrangles of the area and District Government mapping. Within the study area, the river is classified as a channelized, freshwater tidal river. The Anacostia River joins the Potomac River, near Buzzard Point, downstream from the study area.

#### *Water Quality*

According to the *Anacostia Watershed Restoration Progress and Conditions Report 1990-1997*, prepared by the Department of Environmental Programs, Metropolitan Washington Council of Governments in May 1998, intense development within the watershed of the Anacostia contributes to poor water quality. The river receives excessive pollutants including sediment, excess nutrients, toxics, trash, and debris. During significant rainfall events, combined sewer and stormwater overflows discharge sewage and other pollutants directly into the river. These conditions result in low dissolved oxygen levels that often violate water quality standards and threaten aquatic life. The Anacostia has high levels of bacteria that make swimming and wading in the waters unsafe.

The wastewater collection system, operated by the District of Columbia Water and Sewer Authority (WASA) is made up of “separate” and “combined” sewers. Most of the sewers in the District are separate systems, which means they are independent piping systems for sanitary and stormwater. The study area is served mostly by separate systems. Most of the stormwater in the study area goes into the WASA system, passes through the O Street pumping station, and is discharged into the Anacostia River.

#### *Wetlands*

A review of the National Wetlands Inventory (NWI) shows that the Anacostia River is a designated wetland. The river is classified as a riverine, tidal, openwater, permanent tidal system (R1OWV) based on the U.S. Department of the Interior, Fish and Wildlife Service classification system.

The DC Department of Health, Environmental Health Administration, Bureau of Environmental Quality, Water Quality Division (WQD) regulates wetlands for the city. Wetland boundaries that have been established by the District do not necessarily reflect jurisdiction under Section 404 of the Clean Water Act. In 1997, the District prepared a plan for wetland conservation that delineated known wetlands within the District. Based on that mapping, two other wetland systems, commonly referred to as the Poplar Point wetlands, have been identified partially within and the South Capitol Street study area. The wetlands are located east of South Capitol Street, north of Howard Road and south of Anacostia Drive on National Park Service property. They are identified as palustrine emergent and palustrine scrub-shrub wetlands and fluctuate seasonally in size. The wetlands are not identified on the NWI map for the area or considered jurisdictional by the Army Corps of Engineers. They are, however, classified as DC jurisdictional wetlands.

The WQD is the lead District Government agency involved in an environmental investigation, remediation and restoration of the Poplar Point wetlands. The WQD's intention is to restore the existing wetlands and create new tidal wetlands at the site. The combined size is expected to be close to 20 acres, with new wetlands located north of the existing ones. The development of a remediation plan is about to begin. Remediation will include removal of contaminated soils. Other DC agencies participating in the restoration study include the Office of Planning, the Underground Storage Tank Division, the Brownfields Program and the Department of Transportation. Federal agency participants include the Environmental Protection Agency, the National Parks Service, and the Architect of the Capitol.

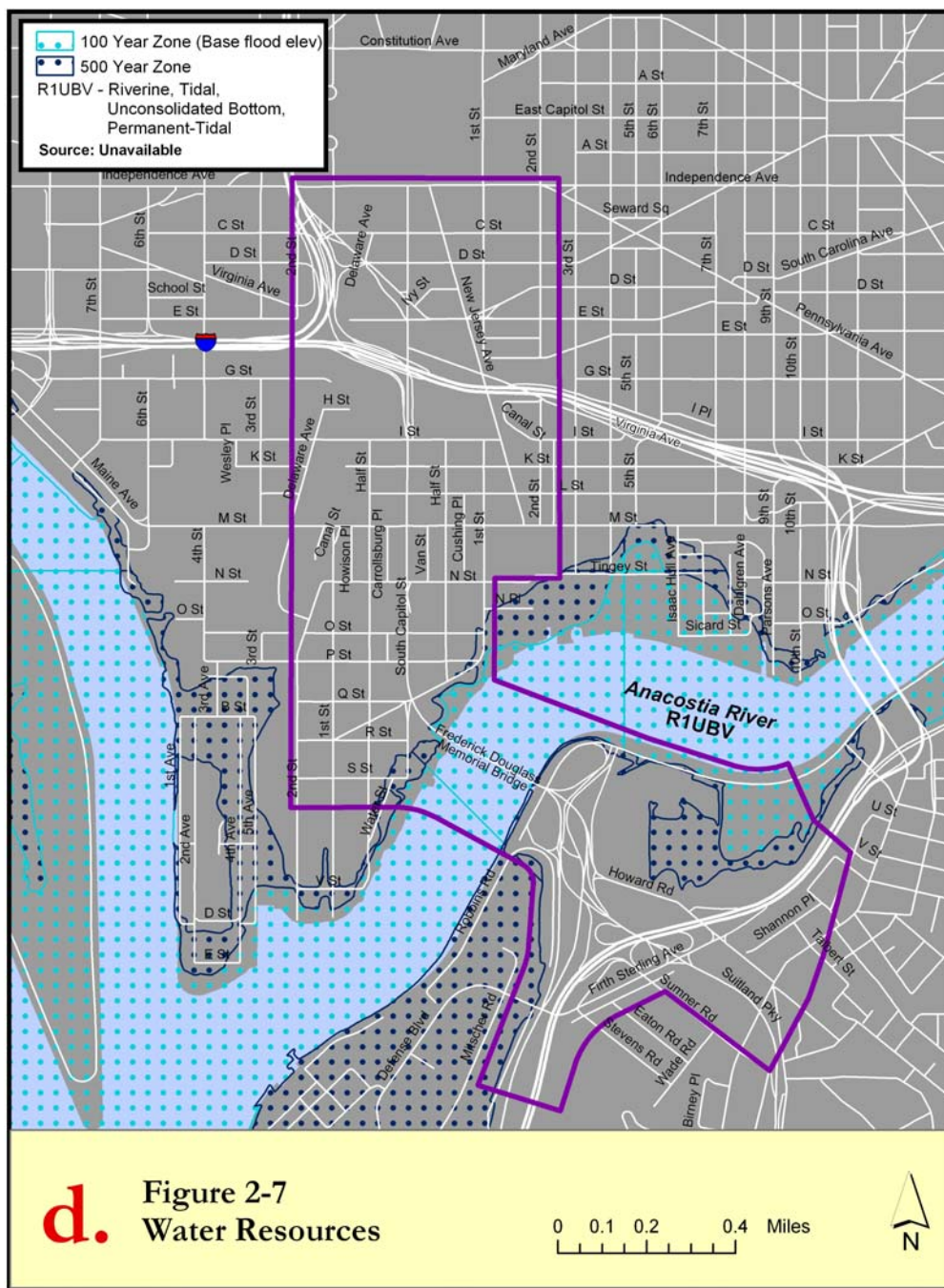
### *Floodplains*

According to the Federal Emergency Management Agency, Flood Insurance Rate Map (FIRM), Community-Panel Number 110001 0030 B, Effective Date: November 15, 1985, the study area is within the 100-year flood zone of the Anacostia River. The base flood elevation for the 100-year flood at the Frederick Douglass Bridge is 11 feet above mean sea level. The east and west banks of the Anacostia River are within the 500-year flood zone. Figure 2-7 depicts the boundaries of the 100- and 500-year flood zones.

## **BIOLOGICAL RESOURCES**

### *Vegetation*

There is little natural vegetation in the study area. Some landscaping, primarily street trees in the tree lawn between the sidewalk and roadway, exists along streets in the study area while most natural vegetation exists along the banks of the Anacostia River and throughout Anacostia Park. According to the National Capital Parks, East Division, some common plants within the Anacostia watershed include a variety of maple trees, smooth alder tree, Queen Anne's lace, American holly, various ferns, common ragweed and Canada thistle.





### Wildlife

The study area is urban and contains little habitat for wildlife, with the exception of the banks of the Anacostia River and Anacostia Park. The National Capital Parks, East Division lists some common wildlife of the Anacostia watershed, including:

- Amphibians (bull frogs, green frogs, marbled salamanders and American toads)
- Reptiles (fence lizards, northern black racer snakes, and eastern box turtles)
- Birds (red-winged blackbirds, eastern bluebirds, Indigo buntings, northern cardinals, mourning doves, various ducks, various egrets, house finches, hawks, sparrows, warblers, and herons)
- Mammals (bats, beavers, chipmunks, fox, deer, opossums, raccoons, and squirrels)

### Protected Species

According to USFWS and the NMFS, there are five species listed as threatened or endangered within the District of Columbia. Table 2-6 lists each species, its status, its habitat and whether or not the potential for suitable habitat exists within the study area.

**Table 2-6 Protected Species Listed for the District of Columbia**

Species Name	Status	Habitat Requirements	Potential for Habitat within Study Area
Hay's Sprig Amphipod ( <i>Syngobromus hayi</i> )	E	Inhabits underground spring and aquifers.	TBD
Bald Eagle ( <i>Haliaeetus leucocephalus</i> )	T	Live and nest near coastlines, rivers, lakes, wet prairies, and coastal pine lands in North America.	TBD
Eastern Puma ( <i>Puma (Felis) concolor cougar</i> )	E	No preference for specific habitat types. The primary need is apparently for a large wilderness area with an adequate food supply.	TBD
Dwarf Wedgemussel ( <i>Alasmidonta heterodon</i> )		Inhabits creek and river areas with a slow to moderate current and a sand, gravel, or muddy bottom. Areas must be nearly silt free.	TBD
Shortnose Sturgeon ( <i>Acipenser brevirostrum</i> )	E		Yes

E: Endangered

T: Threatened

Source: USFWS, NMFS 2002

### AIR QUALITY

The Washington metropolitan region exceeds the National Ambient Air Quality Standards (NAAQS) for ground-level ozone. For this pollutant, the region is classified as a severe non-attainment area for one-hour ozone and as a moderate non-attainment area for eight-hour ozone. The *Plan to Improve Air Quality in the Washington, DC-MD-VA Region, State Implementation Plan (SIP)*, "Severe Area SIP", prepared by the Metropolitan Washington Council of Governments, Metropolitan Air Quality Committee, is the District's SIP which functions as a guide to how the region will attain and maintain the one-hour

standard. A similar SIP will be developed to address the eight-hour standard and submitted to the U.S. Environmental Protection Agency (EPA) for approval. Under the CAA, the area is required to attain the one-hour ozone standard by 2005 and the eight-hour ozone standard by 2010.

## NOISE

Under Federal-Aid Highway Act of 1970, the FHWA is not to approve the plans and specifications for a federally aided highway project unless the project includes adequate noise abatement measures to comply with EPA standards to control major sources of noise in the environment. Federal Procedures for Abatement of Highway Traffic Noise and Construction Noise (23 CFR 772) require state departments of transportation to determine if there will be traffic noise impacts in areas adjacent to federally aided highways. If impacts are identified, then noise abatement measures must be considered and implemented if those measures are determined to be reasonable and feasible.

Noise-sensitive land uses, called receptors, are categorized into three types:

- Low-density residential areas far from noise sources, and buildings or parks where quiet is an important element.
- Residential buildings, or buildings with overnight sleeping accommodations such as homes, hospitals, and hotels.
- Institutional land uses with primarily daytime use including schools, churches and synagogues, libraries, auditoriums, and parks.

Potentially sensitive noise receptors within the study area were identified using aerial photography and a field review. Table 2-7 describes these potential receptors.

**Table 2-7**  
**Potential Noise-Sensitive Receptors**

Name of Facility	Location	Category/land use
Randall Recreation Center	820 South Capitol Street, SW	Parkland
Lansburg Park	K Street and Delaware Avenue, SW	Parkland
Garfield Park	F Street and Virginia Avenue, SE between 1 <sup>st</sup> and 3 <sup>rd</sup> Streets, SE	Parkland
Unnamed Parcel	Potomac Avenue, SE, bound by P and Half Streets, SE	Parkland
James Creek Marina	Buzzard Point, 2 <sup>nd</sup> Street, SW	Parkland
King Greenleaf Recreation Center	Between Canal and 1 <sup>st</sup> Streets, SW	Parkland
Folger Park	200 block D Street, SE	Parkland
Unnamed Parcel	200 block D Street, SE	Parkland
Anacostia Park	South east bank of Anacostia River	Parkland
Brent Elementary School	330 3 <sup>rd</sup> Street, SE	Institutional, school

Howard Academy	Howard Avenue, SE	Institutional, school
Savoy Elementary School	Howard Avenue, SE	Institutional, school
Bowen Elementary School	101 M Street, SW	Institutional, school
Capitol Hill Day School	210 South Carolina Avenue, SE	Institutional, school
Capper Carolsburg	900–1099 3 <sup>rd</sup> Street, SE	Residential
Greenleaf Senior	1200 Delaware Avenue, SW	Residential
James Creek Dwellings	Between Half and 1 <sup>st</sup> Streets, SW	Residential
Syphax Garden Apartments	Half Street, SW between P and Q Streets	Residential
Carolsburg Place		Residential
Syphax Village	Half Street, SW between N and P Streets (eastside of street)	Residential
Tel-Court Cooperative	Half Street, SW between N and P Streets (westside of street)	Residential
Barry Farm Dwellings	Off of Firth Sterling Road	Residential

*Source: Parsons Brinckerhoff, September 2002*

## HAZARDOUS WASTE SITES

The District of Columbia Department of Health, Environmental Health Administration, Bureau of Hazardous Materials and Toxic Substances provided information on the potential presence of hazardous wastes and waste sites. The U.S. Environmental Protection Agency (EPA), Region III website lists sites that may be included on the National Priorities List (NPL) within the study area. The NPL is part of the Superfund Program established by Congress in 1980. The EPA, in cooperation with individual states and tribal governments, administers the Superfund Program. The program locates, investigates, and cleans up hazardous waste sites throughout the United States. The NPL is generated from ranking known or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States.

The study area is urban and consists primarily of commercial and industrial land uses. The District's records indicate that many leaking underground storage tanks (LUSTs) are located within the study area. These LUSTs, which contain petroleum products, have contributed to soil and groundwater contamination. Of particular concern may be the Hess Oil and Chemical Company property located along South Capitol Street, beneath and south of the Frederick Douglass Memorial Bridge. This property contains what appear to be large petroleum storage tanks. Also of concern is an abandoned transformer station located on the east side of South Capitol Street just south of the Southeast-Southwest Freeway, due to the potential for the transformers to contain hazardous materials and their residue.

The EPA lists no NPL sites the study area. The Washington Navy Yard, just north of the study area, is listed on the NPL. The site has been contaminated with polycyclic aromatic hydrocarbons (PAHs), a combination of heavy metals such as lead, polychlorinated biphenyls (PCBs) and dioxins. These contaminants have contributed to polluting the Anacostia River and river-bottom sediments.

### **CULTURAL RESOURCES**

Section 106 of the National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470f (NHPA), is the primary legislation governing historic resources in the United States. It requires federal agencies to take into account the effect of their undertakings on properties included in or eligible for inclusion in the National Register of Historic Places and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. The District of Columbia Historic Preservation Office (DCHPO) coordinates the District's participation in the Section 106 process. The District of Columbia also has a local historic preservation ordinance, the Historic Landmark and Historic District Protection Act of 1978, D.C. Law 2-144, which protects historic buildings, structures, districts, aesthetic objects, and archaeological sites.

A review of existing files and reports on file at DCHPO identified known and potential cultural resources throughout the study area. Resources include structures, archaeological resources and other types of resources. Historic districts are also included. Thirty five potentially eligible structures and six archaeological resources were identified. DCHPO staff provided additional information on cultural resources. Other resources include the Suitland Parkway and the L'Enfant Plan of Washington. Historic districts include the Capital Hill and Howard Road districts.

### **VISUAL AND AESTHETIC CHARACTERISTICS**

Based on guidance from the FHWA, visual resources include land, vegetation, water, and man-made elements. Outstanding visual quality is not a requirement for consideration as visual resources. Characteristics such as viewer sensitivity or local values can indicate visual significance. Visual impacts occur when there is an alteration to the existing visual environment. Residential areas, areas of scenic beauty, parks and recreations areas, historic/culturally important resources, entryways to urban areas, water bodies, and some public structures are generally recognized as critical or sensitive locations.

Generally, South Capitol Street is a freeway that offers a bleak welcome to visitors and ignores the surrounding neighborhoods. The street is designed primarily to carry through traffic to other parts of the city. Between the Anacostia River and the Capitol, transportation facilities create visual impediments throughout the corridor; concrete barriers line the street to block cross streets and reduce the number of intersections while overpasses and interchanges obstruct open views to major focal points along the corridor such as the U.S. Capitol and Anacostia River. Sidewalks are narrow and poorly maintained, and walking and bicycling are unpleasant and unsafe. There are few trees or other landscaping.

The Anacostia waterfront provides some natural landscape, although little open space now exists along the waterfront. Anacostia Park, located on the east bank of the river, provides the most open, green space within the study area.





*Industrial character of the study area*



*South Capitol Street's Existing Visual Character*